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10/711,612

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Daniel Alec Gulkis

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CHOATE, HALL & STEWART / CITRIX SYSTEMS, INC.
TWO INTERNATIONAL PLACE
BOSTON, MA 02110

EXAMINER

TRUONG, LECHI

ART UNIT

PAPER NUMBER

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|--------------------------------------------|--|
| Office Action Summary | Application No. 10/711,612 | Applicant(s) GULKIS, DANIEL ALEC | |
| | Examiner LECHI TRUONG | Art Unit 2194 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 and 41-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 and 41-45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>01/20/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-23, 41-45 are presented for the examination. Claims 24-40 are cancelled.
2. Claims 41-45 are not rejected for software per se embodied in a manner so as to be executable as the only hardware is in an intended use statement because the body of the claim 41 comprises a server. The specification defines the server is a personal computer or computer server (para [0027], ln 1-3).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims **1, 5, 8-11, 16-18, 20, 22-23** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi(US 7,319,537 B2) in view of Leurig (US. 2003/0014368) and further in view of Li(US 7,496,234 B2).

As to claim 1, Kikuchi teaches the invention substantially as claimed including: an image-acquisition device(shared image reading apparatus 301, col 13, ln 3-8), a plurality of TWAIN proxy applications(TWAIN drivers, col 11, ln 20-27), the client system(client 303, col

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11, ln 18-25), an image-acquisition device associated with the client system (col 13, ln 3-8), selecting at least on TWAIN proxy application form amongst the plurality of TWAIN proxy application(The network TWAIN driver of the network TWAIN driver layer 309 serving as one of TWAIN drivers transmits, in accordance with an instruction from the application, col 11, ln 20-25), a server(server 302, col 10, ln 40-45), a TWAIN application(a TWAIN, col 10, ln 40-45/Fig. 3), a server executing a TWAIN application(col 10, ln 40-45), receiving by said TWAIN proxy application a command directed to a image-acquisition(col 10, ln 40-45), the at least one TWAIN proxy application associated with the TWAIN application executing on the server(col 11, ln 22-27/ Fig. 3), issuing by the Twain proxy application the received command to the associated image acquisition device(col 10, ln 17-25).

Kikuchi does not explicitly teach receiving, from the image-acquisition device, a response to an issued event, transmitting by the client to the server via a network, the received response. However, Leurig teaches a response to an issued event transmitting to the server via a network, the received response (After the data file is prepared at server 104, the file is securely downloaded to client 108 (step 318) for further processing. Client computer 108 suitably decrypts and/or decompresses the data file, as appropriate, and converts the data file into a format that is appropriate for printing such as POSTSCRIPT format or another format that is understood by printer 110 (step 332). Client computer 108 may further encrypt and/or compress the resultant printable file with DES or another encryption routine prior to transmittal to printer 110, para [0047], ln 1-11/ client computer 108 communicates with printer 110 via a secure connection that is encrypted by DES, SSL or other cryptographic techniques. After printing is

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complete, printer 110 provides a status response (step 322) to client system 108, which in turn provides a status report to server 104 (step 324) to complete the transaction, para[0048], ln 5-9).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the teaching of Kikuchi with Leurig to incorporate the feature of receiving, from the image-acquisition device, a response to a issued event transmitting to the server via a network, the received response because this allows a central location to check the image that are subsequently displayed at remote locations.

Kikuchi and Leurig do not teach a demultiplexor executing on a client. However, Li teaches that “By performing demultiplexing on the fly during the decoding operation, in the manner described above, and successively channeling portions of the combined bitstream into specific decoders in a parallel array of decoders, col 14, ln 51-55/ a clients seamless demultiplexing module 438. The seamless demultiplexing module 438 then demultiplexes the reshaped bitstream and provides the resulting bitstreams to one or more parallel decoder modules 440 residing on the client 436, one for each bitstream, col 12, ln 52-60/ Other input devices (not shown) may include a microphone, joystick, game pad, satellite dish, scanner, or the like, col 6, ln 10-15).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the teaching of Kikuchi, Leurig with Li to incorporate the feature of selecting by a demultiplexor executing on a client because this decodes the compressed signal without the need to use embed demultiplexing aides within the multiplexed bitstream.

As to claim 5, Leurig teaches directly issuing to the image-acquisition device a command based on the received command (para [0047], ln 1-11).

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As to claim 8, Leurig teaches from a second server via the network(document management servers may be connected over the same network N, para[0020], ln 1-7) and Kikuchi teaches command directed to the image-acquisition device associated with the client(col 11,ln 22-27).

As to claim 9, Leurig teaches receiving, from the server via the network, a second command directed to a second image-acquisition device associated with the client (para [0064], ln 1-5).

As to claim 10, Leurig teaches a second server via the network(document management servers may be connected over the same network N, para[0020], ln 1-7) , a second image-acquisition device associated with the client(para[0016], ln 9-10).

As to claim 11, Leurig teaches receiving, from the image-acquisition device, data representing an image (para [0047], ln 1-11).

As to claim 16, Leurig teaches determining whether to transmit the received input to the server (para [0052], ln 12-18).

As to claim 17, it is an apparatus claim of claim 1; therefore, it is rejected for the same reason as claim 1 above. In additional, Kikuchi teaches an image acquired from the image acquisition device, provided by a redirector module executing on the server, the received event to a TWAIN application program associated with the event, received By the server from the TWAIN application program, forwarding the received response to the selected TWAIN proxy application(a charging setting information structure is acquired from an individual image reading apparatus, col 6, ln 23-27/The TWAIN driver management/operation layer 305 is a module layer that manages the TWAIN driver layer 304 using a TWAIN I/F, receives a use request of the

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shared image reading apparatus 301 from another PC through the network communication layer 306, or acquires an image or information (capability) corresponding to the received request from the TWAIN driver layer 304 and transmits the acquired image or information to the requesting PC through the network communication layer 306. The image reading apparatus sharing server function is implemented by the TWAIN driver management/operation layer (module layer) 305, col 10, ln 47-56/the shared image reading apparatus client PC 303 side exchanges information with the image reading apparatus sharing server 302 through the network on the basis of a request from the TWAIN compatible application layer 310 while behaving as if it were a local TWAIN device, col 11, ln 33-38).

As to claim 18, Li teaches determining, from the received event, an application program associated with the received event; and (b-2) providing the received event to the determined application program (col 14, ln 51-55).

As to claims 20, 22, Kikuchi teaches receiving from a client data represented and image acquired/ event (col 11, ln 20-25).

As to claim 23, Leurig teaches providing event received from the second client to second instances of application program associated with the event (para [0047], ln 1-11).

4. Claim **2** is rejected under 35 U.S.C. 103(a) as being unpatentable over as being unpatentable over Kikuchi(US 7,319,537 B2) in view of Leurig (US. 2003/0014368) view of Li(US 7,496,234 B2), as applied to claim 1 above, and further in view of Wei (US 6,654,784 B1).

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As to client 2, Kukuchi, Leurig and Li do not teach the group consisting of ICA, RDP and X-WINDOWS. However, Wei teaches (The communication between client and server is through well-established protocols, such as X-Windows Protocol, Microsoft Remote Display Protocol (RDP) or Citrix Independent Computing Architecture (ICA), col 2, ln 58-65) .

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the teaching of Kukuchi, Leurig and Li with Wei to incorporate the feature of ICA, RDP and X-WINDOWS because this improves the communication between client and server through the well-established protocols.

5. Claims **3, 4, 19** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi(US 7,319,537 B2) in view of Leurig (US. 2003/0014368) in view of Li(US 7,496,234 B2), as applied to claims 1, 17 above, and further in view of (APA) Admitted Prior Art.

As to claim 3, Kukuchi, Leurig and Li do not teach the image-acquisition device a TWAIN API call. However, APA teaches image-acquisition device a TWAIN API call (Twain is a standard framework for imaging applications. The applications call a well-known API to control document scanners, para [0002], ln 1-5).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the teaching of Kukuchi, Leurig and Li with APA to incorporate the feature of a TWAIN API call because this provides a quick and easy way for developers to capture image from the entire compliant scanner.

As to claim 4, APA teaches issuing to the image-acquisition device a device driver call based on the received command, para [0003], ln 4-8).

As to claim 19, Leurig teach response and receiving via a network (para [0005], ln 8-10) and APA teach intercepted TWAIN API call (para [0003], ln 5-10).

6. Claims **6, 7** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi(US 7,319,537 B2) in view of Leurig (US. 2003/0014368) and further in view of Li(US 7,496,234 B2), as applied to claim 1 above, and further in view of Peterson(US 7,095,905).

As to claim 6, Kukuchi, Leurig and Li do not teach the issued command including an indication to suppress display of a dialog box to a user. However, Peterson teaches the issued command including an indication to suppress display of a dialog box to a user(the network server 42 transmits the web page 70 to a user on client computer 14, 16, 18 to allow the user to send images 11 to the server 12. The user may add images to the web page by clicking on an add button 72. The web page 70 includes images 11a-11d that have been added to the web page 70 using the add button 72. The images 11a-11d depicts overlapping segments of a view of a tree. The user may transmit each of the images 11a-11d by clicking on an upload button 74a-74d that corresponds to the image, col 4, ln 25-35, Fig. 2).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the teaching of Kukuchi, Leurig and Li with Peterson to incorporate the feature of the issued command including an indication to suppress display of a dialog box to a user this allows users at different locations to collaborate the panoramic images.

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As to claim 7, Peterson teaches displaying a second dialog box to a user in lieu of the suppressed dialog box (col 4, ln 25-4).

7. Claims **12-15, 21** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi(US 7,319,537 B2) in view of Leurig (US. 2003/0014368) and further in view of Li(US 7,496,234 B2), as applied to claim 1 above, and further in view of Dellert(US 5,267,051).

As to claim 12, Kukuchi, Leurig and Li do not teach compressed image data. However, Dellert teaches compressed image data (two-dimensional image compression, col 4, ln 28-30).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the teaching of Kukuchi, Leurig and Li with Dellert to incorporate the feature of compressed image data because this provides high speed data communication of the imagery data over a digital communication link.

As to claim 13, Dellert teaches determining that the image data comprises more than one bit for each pixel location prior to transmitting (col 3, ln 1-10).

As to claim 14, Dellert teaches compressing the image data using a first compression algorithm to form first compressed image data; compressing the image data using a second compression algorithm to form second compressed image data (col 2, ln 5-10), selecting for transmission the smaller of the first compressed image data and the second compressed image data (col 5, ln 25-30).

As to claim 15, Dellert teaches compressing compressed image data during transmission (col 5, ln 25-30).

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As to claim 21, Dellert teaches decompressing the received image acquisition data (col 2, ln 25-30).

8. Claims **41-45** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi (US 7,319,537 B2) in view of Lo (US 5,911,044 A) and further in view of Sturniolo (US 2006/0123079 A1).

As to claim 41, Kikuchi teaches the invention substantially as claimed including: a server(server 302, col 10, ln 40-45), a TWAIN application(a TWAIN, col 10, ln 40-45/Fig. 3), a server executing a TWAIN application, col 10, ln 40-45), a redirector(TWAIN driver management/operation layer 305 is a module layer that manages, col 10, ln 47-52), a redirector module executing on the server, col 10, ln 48-55), a plurality of TWAIN proxy applications(TWAIN drivers, col 11, ln 20-27), the client system(client 303, col 11, ln 18-25), an image-acquisition device(shared image reading apparatus 301, col 13, ln 3-8), an image-acquisition device associated with the client system , col 13, ln 3-8), , selecting at least one TWAIN proxy application from amongst the plurality of TWAIN proxy application(The network TWAIN driver of the network TWAIN driver layer 309 serving as one of TWAIN drivers transmits, in accordance with an instruction from the application, col 11, ln 20-25), the at least one TWAIN proxy application associated with the TWAIN application executing on the server(col 11, ln 22-27/ Fig. 3), forwarding the received calls to the at least one TWAIN proxy application, col 11 ln 22-28).

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Kikuchi does not explicitly teach calls made by TWAIN application, receiving calls to the at least one TWAIN API proxy application. However, Lo teaches calls made by TWAIN application, receiving calls to the at least one TWAIN API proxy application([client has TWAIN application and server has TWAIN application], Fig. 3/ The TWAIN standard defines a standard software protocol and API (application programming interface) for communication between software applications and image acquisition devices (the source of the image data),col 5, ln 18-23/ The virtual TWAIN driver 106 and client protocol encoder/decoder 108 translate the TWAIN API calls into requests which are compatible with the protocol described below with respect to FIGS. 7A-7L. col 7, ln 35-40).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the teaching of Kikuchi with Lo to incorporate the feature of calls made by TWAIN application, receiving calls to the at least one TWAIN API proxy application because this allows the application program to act, to a certain extent, as if the client computer is directly connected to an image scanner, even though the scanner is connected to a scanner server, the scanner server being connected to the client computer over a computer network.

Kikuchi and Lo do not teach redirector module executing on the server and intercepting calls, A multiplexor executing on server and transmitting the call, demultiplexor executing on the client system receiving the transmitted call. However, Sturniolo teaches redirector module executing on the server and intercepting calls(intercepts certain calls at the TDI 204 interface and routes them via RPC and Internet Mobility Protocols and the standard TCP/UDP transport protocols 202 to Mobility Management Server 102 over network 108, para[0125], ln 2-5/ FIG. 2, Mobility Management Server 102 includes an address translator 220 that intercepts messages

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to/from Mobile End Systems 104 via a conventional network interface driver 222, para[0128], ln 1-3), A multiplexor executing on server and transmitting the call, demultiplexor executing on the client system receiving the transmitted call(The Internet Mobility Protocol provides an efficient mechanism for multiplexing multiple streams of data (reliable and unreliable) through a single virtual channel provided by such standard transport protocols over standard network infrastructure, Para[0028], ln 5-8/ the Internet Mobility Protocol coalesces data from different sources targeted for the same or different destinations, together into a single stream and forwards it over a mobile link. At the other end of the mobile link, the data is demultiplexed back into multiple distinct streams, which are sent on to their ultimate destination(s). the multiplexed/demultiplexing technique allows for maximum use of available bandwidth (by generating the maximum sized network frames possible), and allows multiple channels to be established (thus allowing prioritization and possibly providing a guaranteed quality of service if the underlying network provides the service), para[0029], ln 1-10/ In addition to performing remote procedure calls on behalf of the Mobile End Systems 10, the server RPC engine 240' is also responsible for system flow control, remote procedure call parsing, virtual address multiplexing (in coordination with services provided by address translator 220), para[0137], ln 7-12/ Mobile End Systems 104 also execute client software that enables them to communicate with Mobility Management Server 102 using Remote Procedure Call and Internet Mobility protocol[demultiplexor] that are transported using the same such standard transport level protocol, para[0110], ln 5-10).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the teaching of Kikuchi and Lo with Sturniolo to incorporate the feature of redirector module executing on the server and intercepting calls, A multiplexor executing on

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server and transmitting the call, demultiplexor executing on the client system receiving the transmitted call because this allows the Internet Mobility Protocol to provide the Remote Procedure Call engine with the correct association-specific context information.

As to claim 42, Kikuchi teaches the TWAIN proxy application issues a TWAIN API call to the at least one TWAIN proxy application (col 11, ln 30-37).

As to claim 43, Lo teaches the image-acquisition device generates image data responsive to receiving the calls (col 20, ln 17-23).

As to claim 44, Lo teaches the client system transmits the image data to the server (col 1, ln 50-57).

As to claim 45, Lo teaches the client system compresses the image data prior to transmission, and transmits the compressed data to the server (col 3, ln 32-38).

Response to the argument

9. Applicant's arguments filed 04/28/2009 have been considered but are moot in view of the new ground(s) of rejection. Applicant amended the claims; the new references meet the amended feature.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LeChi Truong whose telephone number is (571) 272-3767. The examiner can normally be reached on 8 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sough Hyung can be reached on (571) 272-6799. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIP. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIP system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).

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/Hyung S. Sough/
Supervisory Patent Examiner, Art Unit 2194
08/02/09

LeChi Truong
August 4, 2009
